THE CLAIMS:

What is claimed is:

1. A golf ball comprising:

a substantially spherical outer surface, and

a plurality of first dimples formed on the outer surface of the ball, wherein the perimeter of the first dimples comprises at least one linear edge, and defines a concave, substantially spherical depression.

2. The golf ball of claim 1, wherein the perimeter comprises a regular polygon.

3. The golf ball of claim 2, wherein the perimeter is selected from the group consisting of triangle, square, rectangle, pentagon, hexagon, heptagon, and octagon.

4. The golf ball of claim 2, wherein the depression comprises a spherical portion.

5. The golf ball of claim 4, wherein the spherical portion of the depression is defined by a curved enclosure, said curved enclosure is contained within the regular polygonal perimeter.

6. The golf ball of claim 4, wherein the spherical portion of the depression is defined by a curved enclosure, said curved enclosure contacts all the sides of the regular polygonal perimeter.

7. The golf ball of claim 6, wherein the curved enclosure is a circle.

8. The golf ball of claim 6, wherein a transitional surface area is located between the perimeter of the dimple and the curved enclosure.

9. The golf ball of claim 8, wherein the transitional surface area is substantially a flat surface.

10. The golf ball of claim 8, wherein the transitional surface area is a curved surface.

11. The golf ball of claim 10, wherein the curved surface is conical.

12. The golf ball of claim 10, wherein the curved surface is cylindrical.

13. The golf ball of claim 10, wherein the curved surface is spherical.

14. The golf ball of claim 10, wherein the curved surface is parabolic.

15. The golf ball of claim 6, wherein the center of the curved enclosure and the center of the perimeter are located proximate to each other.

16. The golf ball of claim 15, wherein the center of the curved enclosure and the center of the perimeter coincide with each other.

17. The golf ball of claim 6, wherein the center of the curved enclosure and the center of the perimeter are offset from each other.

18. The golf ball of claim 1, wherein the perimeter comprises an irregular polygon.

19. The golf ball of claim 1, wherein the perimeter further comprises at least one curved edge.

20. The golf ball of claim 19, wherein the perimeter comprises a second linear edge.

21. The golf ball of claim 20, wherein the depression comprises a spherical portion.

22. The golf ball of claim 21, wherein the spherical portion of the depression is defined by a curved enclosure and said curved enclosure contacts the perimeter at least at one location.

23. The golf ball of claim 21, wherein the spherical portion of the depression is defined by a curved enclosure and said curved enclosure is contained within the perimeter of the dimples.

24. The golf ball of claim 22, wherein the curved enclosure is a circle.

25. The golf ball of claim 22, wherein the curved enclosure is an oval.

26. The golf ball of claim 23, wherein the curved enclosure is a circle.

27. The golf ball of claim 23, wherein the curved enclosure is an oval.

28. The golf ball of claim 1, wherein the golf ball further comprises second dimples, wherein the perimeter of the second dimples is circular and defines a concave, substantially spherical depression.

29. The golf ball of claim 28, wherein the first dimples are arranged in a predetermined pattern on the outer surface of the golf ball.

30. The golf ball of claim 29, wherein the predetermined pattern is a geodesic pattern.

31. The golf ball of claim 29, wherein the predetermined pattern is random.

32. The golf ball of claim 29, wherein the predetermined pattern is a polyhedron pattern.

33. The golf ball of claim 32, wherein the polyhedron pattern is selected from a group consisting of tetrahedron, octahedron, hexahedron, dodecahedron, and icosahedron.

34. The golf ball of claim 29, wherein the predetermined pattern comprises first dimples arranged along an equator of the ball.

35. The golf ball of claim 34, wherein the equator of the ball is a parting line.

36. The golf ball of claim 34, wherein the predetermined pattern further comprises first dimples arranged along a line orthogonal to the equator.

37. The golf ball of claim 36, wherein the predetermined pattern further comprises first dimples arranged along a line diagonal to the equator and to the orthogonal line.

38. The golf ball of claim 29, wherein the predetermined pattern comprises longitudinal lines on the ball.

39. The golf ball of claim 29, wherein the predetermined pattern comprises the latitude lines on the ball.

40. A golf ball comprising:

a substantially spherical outer surface, and

a plurality of first dimples and a plurality of second dimples formed on the outer surface of the ball, wherein the first dimples are different than the second dimples and wherein the first and second dimples are arranged in accordance to a predetermined pattern.

41. The golf ball of claim 40, wherein the predetermined pattern comprises the first dimples arranged along a geodesic pattern and the second dimples arranged in the remaining space on the outer surface of the ball.

42. The golf ball of claim 40, wherein the predetermined pattern comprises the second dimples arranged along a geodesic pattern and the first dimples arranged in the remaining space on the outer surface of the ball.

43. The golf ball of claim 40, wherein the predetermined pattern comprises the first dimples arranged along a polyhedron pattern and the second dimples arranged in the remaining space on the outer surface of the ball.

44. The golf ball of claim 40, wherein the predetermined pattern comprises the second dimples arranged along a polyhedron pattern and the first dimples arranged in the remaining space on the outer surface of the ball.

45. The golf ball of claim 43, wherein the polyhedron pattern is selected from a group consisting of tetrahedron, octahedron, hexahedron, dodecahedron, and icosahedron.

46. The golf ball of claim 44, wherein the polyhedron pattern is selected from a group consisting of tetrahedron, octahedron, hexahedron, dodecahedron, and icosahedron.

47. The golf ball of claim 40, wherein the predetermined pattern comprises the first dimples arranged along a random pattern and the second dimples arranged in the remaining space on the outer surface of the ball.

48. The golf ball of claim 40, wherein the predetermined pattern comprises the first dimples arranged along an equator of the ball and the second dimples arranged in the remaining space on the outer surface of the ball.

49. The golf ball of claim 40, wherein the predetermined pattern comprises the second dimples arranged along an equator of the ball and the first dimples arranged in the remaining space on the outer surface of the ball.

50. The golf ball of claim 40, wherein the predetermined pattern comprises the first dimples arranged along an equator and a line orthogonal to the equator of the ball and the second dimples arranged in the remaining space on the outer surface of the ball.

51. The golf ball of claim 40, wherein the predetermined pattern comprises the second dimples arranged along an equator and a line orthogonal to the equator of the ball and the first dimples arranged in the remaining space on the outer surface of the ball.

52. The golf ball of claim 40, wherein the predetermined pattern comprises the first dimples arranged along an equator, a line orthogonal to the equator and a line diagonal to the equator and to the orthogonal line of the ball and the second dimples arranged in the remaining space on the outer surface of the ball.

53. The golf ball of claim 40, wherein the predetermined pattern comprises the second dimples arranged along an equator, a line orthogonal to the equator and a line diagonal to the equator and to the orthogonal line of the ball and the first dimples arranged in the remaining space on the outer surface of the ball.

54. The golf ball of claim 40, wherein the predetermined pattern is determined in accordance to a phyllotaxic methodology.

55. The golf ball of claim 40, wherein the first dimples have a regular polygonal perimeter and a concave depression formed of planar surfaces.

56. The golf ball of claim 40, wherein the first dimples have an irregular polygonal perimeter and a concave depression formed of planar surfaces.

57. The golf ball of claim 40, wherein the first dimples have an isodiametric polygonal perimeter.

58 The golf ball of claim 40, wherein the second dimples have a circular perimeter and a concave, substantially circular depression.

59. A golf ball comprising:

a substantially spherical outer surface,

a plurality of dimples formed on the outer surface of the ball, and

a band positioned proximate to an equator of the ball, wherein the elevation of the surface of the band is different than the elevation of the outer surface of the ball.